

REMARKS

By this amendment, claims 1-5, 7-9, 11-13, 15-16, 18, 20-25, 27-28, 30-32, and 34-35 have been amended. Claims 25, 28, and 34 have been amended only to incorporate the subject matter of their base claims and any intervening claims. Claim 14 has been canceled, and new claim 40 has been added. No new matter has been added. Applicant respectfully submits that all of the amendments are to subject matter that should reasonably have been searched fully, and that no new search is required. Claims 1-13 and 15-40 remain for consideration in the application.

Claim Rejections Under 35 U.S.C. § 112

Claims 1-23 and 35-39 were rejected under 35 U.S.C. §112, first paragraph, as being indefinite for failing to comply with the enablement requirement. Applicant traverses.

Claims 1-23 and 35-39 were apparently also rejected under 35 U.S.C. §112, first paragraph, the Office Action asserting that since the claimed invention is not supported by either a specific and substantial asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention. Applicant traverses.

However, in the interests of advancing prosecution, claims 1 and 18 have been amended to more clearly point out the function and configuration of the magnets of the present invention. Specifically, the reconfiguration for AC and DC operation and the configuration of the magnets has been amended to recite that the permanent magnet subassembly includes magnets “comprising a first toroidal magnet of the plurality of magnets having a first magnetic pole and a second magnetic pole, the first and second magnetic poles of the first magnet facing inwardly, and a second toroidal magnet of the plurality of magnets having a first magnetic pole and a second magnetic pole, the first and second magnetic poles of the second magnet facing outwardly toward the inward-facing magnetic poles of the first magnet; wherein the plurality of magnets are reconfigurable for alternating current operation wherein the magnetic poles of the first magnet are opposite in polarity to the magnetic poles of the second magnet to induce current in a first direction for a first 180 degrees and in a second opposite for the other 180 degrees of a

360 degree rotation of the permanent magnet subassembly, or direct current operation wherein the magnetic poles of the first magnet are matched in polarity to the magnetic poles of the second magnet to induce current in a single direction for the entire 360 degrees of rotation of the permanent magnet subassembly.” This amendment clearly shows how the magnets are configured and reconfigured to provide either DC or AC operation. There is a constant magnetic field in the DC configuration for the entire 360 degrees of rotation. The field is uniform, and the exciters are all excited to induce current in a single direction. There is no approach and moving away from the magnet as is asserted in the Office Action. The distance between magnets and exciter elements is fixed and uniform for 360 degrees. The field for DC operation is uniform and constant. When the magnets are reconfigured for AC operation, then the exciters are excited to induce current in one direction for 180 degrees of motion, and in an opposite direction for the other 180 degrees of rotation.

As such, operability, clarity, and utility are clearly and unambiguously shown in the claims as amended. Applicant submits that the claims overcome any rejections under 35 U.S.C. §112, and that the claims as amended are allowable.

Claims 2-13, 15-17 and 19-23 depend directly or indirectly from one of allowable claims 1 or 18, and are also believed to be allowable.

Claim 35 has been amended to more clearly describe the configuration and method for operating the permanent magnet generator in alternating current or direct current operation, and the process therefor. As such, operability, clarity, and utility are clearly and unambiguously shown in the claims as amended. Applicant submits that the claims overcome any rejections under 35 U.S.C. §112, and that the claims as amended are allowable. Claims 36-39 depend from and further define patentably distinct claim 35, and are also believed allowable.

Claim Rejections Under 35 U.S.C. § 101

Claims 1-23 and 35-39 were rejected under 35 U.S.C. § 101, the Office Action asserting that the claimed invention is not supported by either a specific and substantial asserted utility or a well established utility. Applicant traverses. The arguments set forth with respect to the rejection under 35 U.S.C. §112 clearly show a utility, and those arguments apply equally to this rejection.

Still further, the Office Action requested evidence to demonstrate the operability of the DC mode. Applicant has provided such evidence above, but submits also herewith (as Appendix A) a diagram of magnetic field strength for the dipole magnet situation that is identified as the DC operation mode. The plot shows uniform magnetic field strength for the magnet assembly identified in the application as DC configuration. In combination with the discussion above, there is clear and unambiguous evidence of the operability and utility of the present claims.

Claim Rejections Under 35 U.S.C. § 102

Claims 30 and 33 were rejected under 35 U.S.C. § 102(b) as being anticipated by Adám (European Patent Office Publication No. EP 429729A1). Applicant traverses.

As Applicant has repeatedly shown and discussed, Adám uses coils, not exciter elements as in the present claims. The exciter elements of the present claims have a short helical lead wire. As it is defined in the specification, which must be read in order to interpret the claims, this short helical lead wire (identified as a helical shape in the specification) is not capable of being a coil winding such as in the coils of Adám. Coils have multiple overlapping windings and are long. The short helical lead wire of the present claims is not overlapping, and does not form any semblance of a coil. Coils and exciters are clearly different. Coils have long overlapping windings. The exciters of the present claims have short helical wires. Coils use the long overlapping windings to focus magnetic intensity in an iron core, where that core does not pass electricity through it. Exciters have a short helical wire, do induce and conduct electricity in the core to the helical wire, and are affixed in relative distance to magnets. The short helical wire transfers electricity from the core. The windings make no transfer of electricity from their core. Coils and exciters are fundamentally different in construction and application. Adám discusses and uses only coils, never exciters. It is improper to call the coils of Adám exciters when it is clear that they are not exciters. Exciters are not present in Adám by any argument. Since Adám does not contain each and every element of claim 30, the claim is allowable. Claim 33 depends from and further defined patentably distinct claim 30, and is also believed allowable.

Claim Rejections Under 35 U.S.C. § 103

Claims 31 and 32 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Adám (European Patent Office Publication No. EP 429729A1) in view of Nahirney (U.S. Patent No. 5,227,702). Applicant traverses.

Nahirney adds nothing to the argument, and no combination of Adám and Nahirney teaches or suggests the subject matter of claims 31 or 32. Still further, claims 31-32 depend from and further define patentably distinct claim 30, and are also believed allowable.

Claim Rejections Under 35 U.S.C. § 103

Claims 24, 26, 27, and 29 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Fukada (U.S. Patent No. 6,147,415). Applicant traverses.

From what Applicant understands of the rejection, the Office Action asserts that there is are exciters just above and just below arm 26 in Figure 3, but does not articulate any reference numeral or refer to any structure of the alleged exciters. Applicant has thoroughly reviewed Fukada, considers exciters and coils to be different, as recited by claims 24 or 27 therein. The only elements that might possibly be construed (incorrectly, Applicant submits) to be exciters are the overlapping windings 30A of the stators of Fukada. As has been discussed in detail above with respect to the rejections of claim 30, long overlapping windings (seen in greater detail in Figure 10 of Fukada) are fundamentally different from the short helical wire of the present claims. As such, Fukada does not teach or suggest all of the elements of claims 24 or 27, and those claims are allowable. Claims 26 and 29 depend from and further define one of patentably distinct claims 24 or 27, and are also believed allowable.

Allowable Subject Matter

Claims 25, 28 and 34 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form, including all of the limitations of the base claim and any intervening claims. Applicant has amended claims 25, 28, and 34, and respectfully requests reconsideration and withdrawal of the objection, and allowance of claims 25, 28, and 34.


CONCLUSION

In view of the above remarks, Applicant believes that all pending claims as amended are facially in condition for allowance and respectfully requests withdrawal of the objections and rejections, and for a Notice of Allowance to be issued in this case.

If the Examiner has any questions or concerns regarding this application, please contact the undersigned at (612) 312-2203.

Respectfully submitted,

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